

## **I. Program providers need to show credible evidence of Abstinence Education effectiveness to decision-makers.**

A perception that abstinence education (AE) is ineffective and/or harmful can deprive program providers access to venues for their programs and funding to implement them. Some legislators and school boards have proposed eliminating AE because they believe **two common misconceptions**:

- a) That research has proved abstinence education is a failed strategy, and
- b) That AE reduces condom use by sexually active teens, putting them at greater risk for STDs and pregnancy.

## **II. How Do You Define "Effective"?**

Whether a prevention strategy is viewed as effective is in part determined by how "effectiveness" is defined.

**There are two types of effectiveness criteria:**

- 1) Standards for the quality of the research evidence
- 2) Standards for the quality of the program outcomes

A prominent example of criteria for effectiveness is found in ***What Works 2010: Curriculum-Based Programs That Help Prevent Teen Pregnancy***, by the National Campaign to Prevent Teen and Unplanned Pregnancy. According to *What Works 2010* (WW2010), 30 effective prevention programs have shown credible evidence that they "reduce teen pregnancy rates, increase contraception use, or delay the onset of sexual activity."

WW2010 used the following criteria for the quality of the research evidence:

- Included baseline and follow-up data (for at least 3 months)
- Measured impact on behavior
- Included at least 75 youth in both the treatment and the control groups
- Used sound statistical analyses
- Used an experimental or quasi-experimental evaluation design.

WW2010 used the following criteria for the quality of the program outcomes:

- Improvement rates of teen pregnancy, contraception, or sexual initiation
- For any subgroup of the intended population
- For at least 3 months after the program

Programs that produced these results were designated as effective by WW2010.

## **III. Recommended Criteria for Program Effectiveness**

This poster builds on the WW2010 definition of effectiveness. The proposed criteria are based on standards<sup>a</sup> used in the broader field of prevention program effectiveness.

Criteria for the quality of the research evidence:

- Measured outcome behavior at baseline & at least 12 months after the program
- Included at least 75 youth in both the treatment and the control groups
- Used a peer-reviewed experimental or quasi-experimental study
- Used sound statistical analyses, including controls for baseline differences

Criteria for the quality of the program outcomes:

- Improved the behaviors or indicators shown to be most protective for teens: abstinence, consistent condom use, pregnancy, or STDs,
- Impacted the intended population (not only subgroups of the targeted audience),
- Produced effects that lasted at least 12 months after the program's end.

Programs that meet these criteria are more likely to be effective at protecting teens.

a. See Flay B, et al.(2005). Standards of Evidence: Criteria for Efficacy, Effectiveness, and Dissemination. *Prevention Science*, 6(3):151-175; the "Blueprints Programs" at: <http://www.colorado.edu/cspv/blueprints/criteria.html> and <http://www.nip.us/doj.gov/BA/evaluation/evidence-based.htm>.



# Demonstrating Credible Evidence of Effectiveness for Abstinence Education

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## IV. Applying Recommended Criteria of Effectiveness to What Works 2010 Programs

Programs Designated as Effective in *What Works 2010: Curriculum-Based Programs That Help Prevent Teen Pregnancy*<sup>1</sup>

					Program Impacts and Duration (Parentheses Indicate Subgroup Effects Only)					
Name of Program	Program Type	Setting	Teen Population Targeted	Authors' Evaluation	Delayed Sexual Initiation/Increased Abstinence	Increased Consistent Condom Use	Reduced Teen Pregnancy	Reduced STDs	Increased Frequency of Condom Use	Increased Contraceptive Use
Aban Aya Youth Project	CSE	School & Community-based	AfricanAmerican	YES					(9mo.-60)	
All4You!	CSE	Alternative High School	Mixed race	YES	No		No		6mo./NOT 12mo.	No
ICuldate!	CSE	School & Community-based	Hispanic	YES	No	12 mo./less decline <sup>3</sup>			(12 mo./SO)	
Draw the Line / Respect the Line	CSE	School-based	Hispanic	YES	(End of prog-36mo-60)				No	
It's Your Game...Keep It Real	CSE	School-based	AfrAm&Hispanic	YES	12mo-after 2yrProgram					No
Making a Difference! An Abstinence Program	Abstinence	School-based	AfricanAmerican	YES	3 mo/NOTfor12mo	No			12 mo.	
Making Proud Choices!	CSE	School-based	AfricanAmerican	YES	No	3 mo.			12mo.	
Positive Prevention	CSE	School-based	AfricanAmerican	??	6 mo.				No	
Promoting Health Among Teens!	Abstinence	School-based	AfricanAmerican	YES	24mo	No				
Safer Choices	CSE	School-based	White	YES	(18 mo.-HO)				18 mo.	(18 mo.-BO)
Get Real About AIDS	CSE	School-based	White	??	No				<6 mo.	
Reasons of the Heart	Abstinence	School-based	Mixed race	NO	12 mo.					
Reducing The Risk	CSE	School-based	White	YES	18 mo.				(SexinexpO:18mo)	
Seattle Social Development Program	SocialDev&RiskAvoid-NotSexEd	School-based	Mixed race	YES	10 years		(10 years-GO)	No	10 years	
Be Proud! Be Responsible!	CSE	Community/Clinic-based	AfricanAmerican	YES	No				3 mo.	
Becoming a Responsible Teen!	CSE	Clinic-based	AfricanAmerican	YES	12mo				12mo	
Children's Aid Society (CAS)-Carrera Program	YouthDev.&ClinicServices/CSE	Community-based	AfrAm&Hispanic	NO	(at end of 3-yr prog-GO)		(at end of 3-yr prog-GO) <sup>4</sup>		No	(at end of 3-yr prog-GO)
Focus on Kids	CSE	Public Housing Development	AfricanAmerican	YES	No				36mo.	
Focus on Kids plus IMPACT	Parent&TeenProgram/CSE	Public Housing Development	AfricanAmerican	YES			24 mo. <sup>5</sup>		6 mo/Not12, 18,24mo	
HIV RiskReduct-DetainedAdol(Keepin' it REAL)	Safer Sex	Juvenile Detention Facility	Mixed race	YES					12mo/No Decline	
HORIZONS HIV Intervention	Safer Sex	Clinic-based	AfrAm Females	YES		at12mo-for60days			12mo.	
Keepin' It R.E.A.L.I	Parent&TeenProgram/CSE	Community centers	AfricanAmerican	YES	No				24 mo.	
Learn & Serve America	Service Learning-Not Sex Ed	Community agencies	Mixed race	??			(End of prog/8mo/NOT aft1yr)			
Multidimensional Treatment-Foster Care	YouthMentoring-NotSexEd	Foster homes	White	NO			24mo			
Poder Latino: A Community AIDS Prev. Prog.	Condom Distribution/Promotion	Community & School-based	Hispanic	??	(End of prog/18mo.-BO) <sup>2</sup>				No	
Reach for Health Community Youth Service	Service Learning/CSE	Community agencies	AfricanAmerican	??	8 mo.					
REAL Men	Parent&TeenProgram/CSE	Community centers	AfricanAmerican	YES	6 mo/NOT12mo	12 mo.			12 mo.	
SHILE (HIV Prevention Intervention)	CSE	Clinic-based	AfrAm Females	YES		at12 mo-for pasttime	6 mo/NOT 12mo	12mo	12 mo.	
TeenHealthProject	CSE	Public Housing Development	Mixed race	YES	(12mo-SexinexpO)				6 & 18mo	
Teen Outreach Program	Service Learning-Not Sex Ed	Community agencies	AfrAm Females	NO			End of prog-9mo			

KEY

Green = Program increased Abstinence or CCU, or reduced teen pregnancy or STDs, at least 12 months after the program

Blue = Not condom use education

(?) = Indicates a subgroup effect

CSE = Comprehensive Sex Education (condom instruction & some abstinence content)

BO = Boys Only (Subgroup effect)

GO = Girls Only (Subgroup effect)

HO = Hispanic Only (Subgroup effect)

SO = Spanish-Speaking Students Only (Subgroup effect)

No = This outcome was measured but no significant program impact was found at any time period(s) tested

1. Suelentrop K. (2010). *What Works 2010: Curriculum-Based Programs That Help Prevent Teen Pregnancy*. National Campaign to Prevent Teen and Unplanned Pregnancy. Washington DC.  
2. Sexual initiation for girls increased – a negative outcome.

3. This program did not increase consistent condom use, but reported a program effect because the control group declined more than the program group, which went from 47% to 42% consistent condom use, 1 year after the program  
4. Two subsequent evaluations of programs based on the CAS-Carrera model were found to be ineffective; one showed negative effects  
5. While this program showed a reduction in pregnancy after 24 months, there was no effect on condom use or sexual activity at 12 or 24 months, and no effect on increased contraception, calling into question a program effect as the cause

Cells shaded green indicate outcomes that meet the Recommended Criteria

### Summary of Research Evidence by Type of Program: School-based Programs<sup>1</sup>

found in

*What Works 2010: Curriculum-based Programs That Help Prevent Teen Pregnancy*<sup>2</sup>

How many programs demonstrated improvement on these outcomes for the target population (not a subgroup) at least 12 months after the program?	Type of Program <sup>3</sup>		
	Abstinence Education (N=3)	Other Kinds of Sex Education (N=9)	Social Development/ Not Sex Ed (N=1)
<i>Note: Not all programs measured each of these outcomes:</i>			
Abstinence	2	2	1
Consistent Condom Use <sup>4</sup>	0	0	0
Pregnancy	0	0	0
STDs	0	0	0
<b>TOTAL PROGRAMS: Most protective outcomes<sup>5</sup></b>	<b>2</b>	<b>2</b>	<b>1</b>
Condom Use Frequency	2	2	1
Contraceptive Use Frequency	0	2	0
<b>TOTAL PROGRAMS: Any of above outcomes<sup>6</sup></b>	<b>3</b>	<b>4</b>	<b>1</b>

<sup>1</sup>Some of these programs met the criteria of effectiveness for more than one of the above outcomes; the totals represent the number of separate programs that met the criteria.

1. "School-based" programs serve a school population, are held at school in a classroom-type setting (including after school or Saturdays), use a curriculum-based method, and can be implemented at most schools. They differ in important ways from clinics or community-based programs, which often serve unique populations & use methods not amenable to schools. School-based programs are where most teens receive sex education and are what most people think of as "sex education." *What Works 2010* contained 14 school-based programs.  
2. See Suelentrop K. (2010). *What Works 2010: Curriculum-Based Programs That Help Prevent Teen Pregnancy*. National Campaign to Prevent Teen and Unplanned Pregnancy. Washington DC. This is a list of 30 "effective" programs, i.e., studies that met standards of research rigor and found some risk reduction that lasted up to 10 months.  
3. "Abstinence education" are programs that teach abstinence and do not promote condom use. "Other Kinds of Sex Education" programs promote condom use and may teach abstinence to varying degrees. The "Social Development" programs were social skills training for 1<sup>st</sup> and 9<sup>th</sup> graders, along with training for their parents and teachers, and was not sex education.  
4. Consistent condom use (CCU)—use every time sex occurs—is the behavior upon which the condom's rate of protection for various STDs and pregnancy are based. Thus, CCU is necessary for teens to achieve the partial protection that condoms provide from these consequences. Less than consistent use has been associated with inadequate STD protection or higher rates of STDs (Ahmed et al., 2001& Shlay et al., 2004). One school-based comprehensive sex ed program found CCU declined 12 months after the program (from 47% to 42% of the sexually active), but reported a program effect because the control group was lower than the program group at 12 months, although a similar difference appeared to exist at baseline (Warmed et al., 2006).  
5. Produced by The Institute for Research & Evaluation, Salt Lake City UT. Contact: [ihed@iand.com](mailto:ihed@iand.com) 4-14-10

### Summary of Research Evidence by Type of Program: Community or Clinic-based Programs<sup>1</sup>

found in

*What Works 2010: Curriculum-based Programs That Help Prevent Teen Pregnancy*<sup>2</sup>

How many programs demonstrated improvement on these outcomes for the target population (not a subgroup) for at least 12 months after the program?	Type of Program		
	Clinic-based Sex Education Programs (N=4)	Community-based Sex Education (N=5)	Youth Development: Community & Clinic-based (N=1)
<i>Note: Not all programs measured each of these outcomes:</i>			
Abstinence	1	0	0
Consistent Condom Use <sup>3</sup>	2	0	0
Pregnancy	0	1	0
STDs	2	0	0
<b>TOTAL # of PROGRAMS: Most protective outcomes<sup>4</sup></b>	<b>3</b>	<b>1</b>	<b>0</b>
Condom Use Frequency	3	3	0
Contraceptive Use Frequency	0	0	0
<b>TOTAL # of PROGRAMS: Any of above outcomes<sup>5</sup></b>	<b>3</b>	<b>4</b>	<b>0</b>

<sup>1</sup>Some programs achieved the criteria of effectiveness for more than one of the above outcomes; the totals are the number of programs meeting the criteria, not the number of outcomes.

1. "Clinic or community-based" programs often serve unique high risk populations, identified through a health clinic or community agency, & may use methods not amenable to schools. They differ in important ways from "school-based" programs which serve a school population, are held at school in a classroom-type setting (including after school or Saturdays), and can be implemented at most schools. The "Youth Development" multi-year, multi-component program provided high school youth with job & academic assistance, participation in sports & the arts, family life education, & sexual health services. All of these programs promoted condom/contraceptive use, and may have also promoted abstinence to varying degrees.  
2. See Suelentrop K. (2010). *What Works 2010: Curriculum-Based Programs That Help Prevent Teen Pregnancy*. National Campaign to Prevent Teen and Unplanned Pregnancy. Washington DC. This is a list of 30 "effective" programs, i.e., studies that met standards of research rigor and found some risk reduction that lasted up to 3 months.  
3. Consistent condom use (CCU)—use every time sex occurs—is the behavior upon which the condom's rate of protection for various STDs and pregnancy are based. Thus, CCU is necessary for teens to achieve the partial protection that condoms provide from these consequences. Less than consistent use has been associated with inadequate STD protection or higher rates of STDs (Ahmed et al., 2001& Shlay et al., 2004).  
4. Produced by The Institute for Research & Evaluation, Salt Lake City UT. Contact: [ihed@iand.com](mailto:ihed@iand.com) (4-14-10)

### Summary of Research Evidence by Type of Program: Parent Training and Service-learning Programs

found in

*What Works 2010: Curriculum-based Programs That Help Prevent Teen Pregnancy*<sup>1</sup>

How many programs demonstrated improvement on these outcomes for the target population (not a subgroup) for at least 12 months after the program?	Type of Program	
	Parent-Teen Sex Education Programs <sup>2</sup> (N=3)	Service-learning Prevention Programs <sup>3</sup> (N=3)
<i>Note: Not all programs measured each of these outcomes:</i>		
Abstinence	0	0
Consistent Condom Use <sup>4</sup>	1	0
Pregnancy	1	0
STDs	0	0
<b>TOTAL # of PROGRAMS: Most protective outcomes<sup>5</sup></b>	<b>2</b>	<b>0</b>
Condom Use Frequency	2	0
Contraceptive Use Frequency	1	0
<b>TOTAL # of PROGRAMS: Any of above outcomes<sup>6</sup></b>	<b>3</b>	<b>0</b>

<sup>1</sup>Some programs met the criteria for more than one of the outcomes; the totals represent the number of programs meeting the criteria, not the number of outcomes that were achieved.

1. See Suelentrop K. (2010). *What Works 2010: Curriculum-Based Programs That Help Prevent Teen Pregnancy*. National Campaign to Prevent Teen and Unplanned Pregnancy. Washington DC. This is a list of 30 "effective" programs, i.e., studies that met standards of research rigor and found some risk reduction that lasted up to 3 months.  
2. These programs trained parents of high risk teens in addition to the teens themselves; in two of the programs parents received as much or more training than teens. They all included a focus on teaching risk reduction on condom use to teens.  
3. These service-learning programs all had a component in which teens filled in an average of 2-3 hours per week throughout the school year providing voluntary service at a community agency or setting away from their school. Two of the programs did not appear to include any sex education and the other one had a comprehensive sex education classroom component.  
4. Consistent condom use (CCU)—use every time sex occurs—is the behavior upon which the condom's rate of protection for various STDs and pregnancy are based. Thus, CCU is necessary for teens to achieve the partial protection that condoms provide from these consequences. Less than consistent use has been associated with inadequate STD protection or higher rates of STDs (Ahmed et al., 2001& Shlay et al., 2004).  
5. Produced by The Institute for Research & Evaluation, Salt Lake City UT. Contact: [ihed@iand.com](mailto:ihed@iand.com) (4-14-10)

## Summary

Using these criteria, the evidence for the effectiveness of abstinence education appears to be similar to the evidence for the effectiveness of other types of pregnancy prevention programs.

## V. Credible Evidence for Abstinence Education Effectiveness

### Six Programs that Met the Criteria of Effectiveness:

Long-term Impact on Protective Behaviors for the Intended Population  
as shown by

Peer-reviewed Evaluations of Abstinence Education  
that used Experimental or Quasi-experimental Design Studies

Abstinence Program	Effects
<i>Promoting Health Among Teens!</i>	* Reduced sexual initiation by 1/3, after 24 months * Did not reduce teen condom use
<i>Reasons of the Heart</i>	* Reduced rate of sexual initiation by ½, after 12 months
<i>Heritage Keepers</i>	* Reduced rate of sexual initiation by ½, after 12 months
<i>Sex Can Wait</i>	* Reduced sexual initiation after 18 months
<i>Not Me, Not Now</i>	* Reduced sexual initiation after 36 months * Reduced teen pregnancy after 36 months
<i>Choosing the Best</i>	* Reduced sexual initiation by ½, after 12 months

#### References:

Jennett III JB, Jemmott LS, Fong GT. (2010). Efficacy of an abstinence-only intervention over 24 months: a randomized controlled trial with young adolescents. *Arch Pediatr Adolesc Med*. 2010;164(2):152-159.  
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Weed SE, Erickson JE, Birch PJ. (2005). An evaluation of the Heritage Keeper Abstinence Education program. In Golden A (ed.) *Evaluating Abstinence Education Programs: Improving Implementation and Assessing Impact*. Washington D.C.: Office of Population Affairs and the Administration for Children and Families, Department of Health & Human Services 2005:88-103.  
Denny G & Young M. (2006). An evaluation of an abstinence-only sex education curriculum: An 18-month follow-up. *Journal of School Health*, 78(8): 414-422.  
Dentinger AS, Adams II, User CA, Riley JS. (2011). Impact evaluation of the "Not Me, Not Now" abstinence-oriented adolescent pregnancy prevention communications program, Monroe County, New York. *Journal of Health Communications*, 6: p. 45-60.  
Ward SE, Anderson NA, Erickson JE. (unpublished). What kind of abstinence education works? Comparing outcomes of two approaches. March 25, 2008. (Reviewed and included in CDC meta-analysis of sex education outcomes, 2009—see reference in next frame below.)

### Research shows that AE *does not* reduce teen condom use:

1. To date, no studies have shown that an AE program *reduced* teen condom use.
2. Three published studies have shown that AE *does not* reduce condom use by sexually active teens.<sup>a</sup>
3. A study of *Making a Difference* found it *increased* the frequency of teen condom use (although not a measure of consistent use), 12 months after the program.<sup>b</sup>
4. A CDC meta-analysis of sex education studies showed no reduction of teen condom use by AE programs.<sup>c</sup>

a. The three studies show AE teens are not less likely to use a condom if they become sexually active: Steven C. Martino, Ph.D., Marc N. Elliott, Ph.D., Rebecca L. Collins, Ph.D., David E. Kanouse, Ph.D., and Sandra H. Berry, M.A. (2008). Virginity Pledges Among the Willing: Delays in First Intercourse and Consistency of Condom Use. *Journal of Adolescent Health*, 43:341-348; Jennett III JB, Jemmott LS, Fong GT. (2010). Efficacy of an abstinence-only intervention over 24 months: a randomized controlled trial with young adolescents. *Arch Pediatr Adolesc Med*. 2010;164(2):152-159; and Tremblay C, Desveaux B, Fortson K, Quay L, Wheeler J, Clark M. (2007). Impacts of Four Title V, Section 510 Abstinence Education Programs. Princeton, NJ: Mathematica Policy Research, Inc. April 2007. One study reported that teens who took a virginity pledge were less likely to use condoms the first time they had intercourse. However, it was not known whether these teens had received an abstinence education program, and they were not less likely to use condoms at last intercourse or over a 12-month period than non-pledging teens. (Bruckner H & Bearman P. (2005). After the promise: The STD consequences of adolescent virginity pledges. *The Journal of Adolescent Health*, 36(4):271-278).

b. Jennett III JB, Jemmott LS, Fong GT. (1998). Abstinence & safer sex HIV risk reduction interventions for African American adolescents. *JAMA*, 279(19): p1529-1536.

c. See a summary of findings at <http://www.thecommunityguide.org/hiv/index.html> and a critique of those findings at [www.instituteresearch.com](http://www.instituteresearch.com).

## VI. Conclusions

1. Credible research evidence demonstrates that AE can produce substantial and sustained reductions in teen sexual initiation.
2. Research also shows that AE does not reduce teen condom use.
3. This evidence can help AE providers demonstrate to decision-makers that AE is a viable prevention strategy for protecting youth from the negative consequences of teen sexual activity.